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2. *E. impositus*. Dark fuscous; feet and three basal joints of the antennæ, rufous.—5 l. long, $1\frac{2}{3}$ l. wide. Pennsylvania.

Flattish, dark brown, pubescent: head minutely and densely punctured, with clypeus short and rounded at apex: antennæ hardly as long as the thorax, fuscous, three first joints dull rufous; second and third joints shorter and more slender than the fourth, obconic, second shorter than the third; subserrate from the fourth joint: thorax wider than long, much wider at base than at apex, much and finely punctured; dorsal line distinct behind the middle; sides rounded; posterior angles acute, slightly and acutely carinate, straight: elytra gradually narrowed behind the middle, with the apex acutely rounded; punctate-striate, with interstices convex, minutely and distantly punctured: beneath blackish: feet dull rufous; tarsi simple, the joints gradually decreasing in length: posterior femoral plates dilated within and slightly toothed in the middle. This species is altogether destitute of prominent characters. It resembles much in its form some species of *Ctenonychus*.

3. *E. hepaticus*. Brunneous, yellowish hirsute.— $5\frac{1}{2}$ l. long, $1\frac{2}{3}$ l. wide. Pennsylvania.

Brown; head finely and densely punctured, with the clypeus short, margined and obtusely rounded at tip; antennæ dull reddish-brown, slightly serrate, with the second and third joints somewhat elongate, the former shorter than the latter, which is one-third shorter than the fourth: thorax wider than long, wider in the middle than the base of the elytra, slightly convex, minutely and densely punctured; sides slightly rounded; posterior angles short, straight, subacute, obliquely and acutely carinate: scutellum sparsely and coarsely punctured: elytra shortly hirsute like the thorax, punctate-striate, the interstices flat, distantly punctulate, finely corrugated; sides gradually narrowed from the base to near the apex, which is acutely rounded: beneath and feet dull reddish-brown; tarsi simple, with the joints gradually decreasing in length; posterior femoral plates abruptly dilated within, and toothed in the middle.

E. rubricus. Black; lateral and posterior margins of the thorax broadly red.

Var. ♀. "Thorax bright rufous with a large black spot; elytra paler," Say Ann. Lyc. N. Y. i. 261.

Stated Meeting, December 3, 1844.

VICE PRESIDENT MORTON in the Chair.

DONATIONS TO MUSEUM.

Three hundred specimens of Alpine Plants from the mountains in the vicinity of the Valley of Chamouni. Presented by Mr. Jacob Snider, Jr., of Philadelphia.

Fine specimen of the fruit of *Maclura aurantiaca*, from Texas. Presented by Professor George B. Wood.

Fifty specimens of British Lepidoptera and Coleoptera. Presented by Mr. Cassin.

Casts, in plaster, of the impressions of feet of a supposed quadruped, from Greensburg, Pennsylvania. From Dr. Alfred T. King, of Greensburg.

Numerous specimens of the following species of fresh water univalve Shells of Ohio. Presented by Mr. J. G. Anthony, of Cincinnati, viz.:

Amnicola Sayana, Anthony,	Melania Sayii, Wood,
Limnea caperata, Say,	“ abjuta, Haldeman,
“ chalybeus, Gould,	Physa elongata, Say,
“ columella, Say,	“ gyrina,
“ desidiosa, Say,	Planorbis exacutus,
“ humilis, Say,	“ dilatatus, Gould,
“ reflexa, umbrosa, &c.	Cyclas altilis, Anthony,
Melania exilis, Haldeman,	Paludina subsolida, do.
“ gracilis, Anthony.	

The following specimens, from Venezuela, were presented by Mrs. Sarah Campbell, of Germantown.

Copper ore from the mines of Aroa, Venezuela; iron pyrites in grains, from los Tequis, Valley of the Fuy; coral, from the coast near Laguyra; bark of the Great Saman, Valley of Aragua; stalactite, from a cave near Curripi; calcareous deposit with impressions of leaves, from Chacao, in the Valley of Caraccas; 50 specimens of small shells, from the coast west of Puerto Cabello; ‘Sangre de dragon,’ from Venezuela; seeds of different kinds from near the mines of Aroa; coal, from the same locality.

DONATIONS TO LIBRARY.

Transactions of the Zoological Society of London, Parts 2 and 3 of Vol. 3. 4to. London, 1844.

Also Proceedings of the same. Part 11, for 1843. From the Society.

A chronological introduction to the History of the Church, &c. By the Rev. Samuel Farmar Jarvis, D. D., L. L. D.

svo. pp. 618. London, 1844. From Mr. Richard K. Haight, of New York.

A Memoir of William Maclure, Esq., late President of the Academy of Natural Sciences of Philadelphia. By Samuel George Morton, M. D. 2d edition. Philadelphia, 1844. From Mr. Alexander Maclure.

Review of the New York Geological Reports. By David Dale Owen, M. D. (From the American Journal of Science and Arts. Vol. 46.) From the Author.

Report intended to illustrate a Map of the Hydrographical Basin of the Upper Mississippi river, made by J. N. Nicollet, February 16, 1841. Washington, 1843. From the Bureau of Topographical Engineers, through Col. J. J. Abert.

A public discourse in commemoration of Peter S. Duponceau, L. L. D., late President of the American Philosophical Society, delivered October 25, 1844. By Robley Dunglison, M. D. Philadelphia, 1844. From the Society.

A communication was read from the American Philosophical Society, dated November 1, 1844, returning the acknowledgements of the Society for the last No. of the Proceedings of the Academy.

Two communications from the Zoological Society of London, dated October 31, 1843, and June, 1844, in acknowledgment of the receipt of certain numbers of the Proceedings.

A communication from Mr. Haldeman was read, stating that some manuscript descriptions of insects by the late Mr. Say, transmitted by Mrs. Say, which had been referred for examination to a Committee, of which he was chairman, had been already published in the Journal of the Academy.

A letter was read from Dr. Alfred T. King, of Greensburg, Pennsylvania, addressed to Mr. Cassin, dated November 22, 1844, in reference to his donation of this evening.

Professor Johnson exhibited specimens of coal coke, cinders, and lumps of pyrites, from a heap of about 250 tons of bituminous coal, from the line of the summit portage Railroad, in Cambria county, Pennsylvania. This coal had been lying for five or six months in the coal yard of Mr. Nathan Middleton, south west corner of Ridge Road and Willow street, and was yesterday morning (December 2, 1844,) found to be on fire from spontaneous combustion, burning through a board fence between the coal yard and the adjoining premises, very near the ground. The height of the pile, above the point where combustion commenced, was about nine or ten feet. On applying a thermometer at three feet distance, in a horizontal direction from the fire, the temperature was found to be only 70 degrees; but by digging down over the same point to within four feet of the level of the fire, the temperature was 160 degrees.

One of the specimens exhibited, on a surface of deposition, a yellowish white pellicle of pyrites, which, from the minuteness of the crystals, resembles frost-work; another has distinct plies or seams of the sulphuret continued through the lumps; a third is a nodular lump of nearly pure pyrites; and a fourth is a fragment of a reniform mass of the same material, weighing upwards of three pounds, with a film of adhering coal. The interior of the mass is somewhat porous, with slight intermixture of carbonaceous matter; while the exterior is a shell of much more compact structure. Clusters of crystals, of considerable magnitude, are here and there seen. On the part coated with coal are seen films or dissepiments, penetrating the coal at right angles to the surface of the kidney-shaped mass. On one side the coal has been polished, apparently by sliding under immense pressure over some hard substance, giving it the appearance of "slickensides." In this part, the projecting partitions of sulphuret of iron, as well as the coal, have been broken down, crushed and flattened, and the direction in which the folia have been bent, marks that of the motion which had occurred in the bed.

Professor Johnson also exhibited the peroxide of iron adhering to the coke formed in this spontaneous ignition, and referred to the decomposition of sulphate of iron, without access of air, as capable of producing that oxide. Also, to the simultaneous development of anhydrous sulphuric acid and sulphurous acid as the volatile products. The latter acid, when generated in the combustion or distillation of bituminous coal, passes off in combination with ammonia,

giving rise to the sulphite of ammonia, one of the known products of the gas making process.

Reference was made to the first volume of the Proceedings, page 140, for an account of another case, not of actual combustion, but of the heating to 110° of a heap of coal from the same coal district; and to an instance which had come under the observation of Prof. Johnson, at Lowell, Massachusetts, where, having found a temperature of 160° in a heap of Sidney, Nova Scotia, coal, at a distance of three feet from the surface, a period of 50 days was allowed to elapse, in which time it actually took fire.

The importance to coal dealers of attending to the character of that which they store and keep on hand for months, was rendered apparent by the occurrence now alluded to. Had the combustion occurred on another side of the heap, it would have set fire to a coachmaker's shop filled with combustible materials. Had it been on ship-board, the planks and timbers might have been charred, or the vessel set on fire, with scarcely the possibility of extinguishing the flames. The decomposition of sulphuret of iron, found in such abundance in this coal, aided by air and moisture, affords a ready solution of this and similar occurrences.

Dr. Gibbons exhibited a diagram, intended to show the path of the thermometer as compared with that of the barometer, in which the great fluctuations of the former instrument are observed to follow those of the latter at a distance of about thirty-six hours.

Also a table, showing that the mean temperature of the last six days of November, for a period of seventeen years, ending 1843, is lower than that of the first six days of December, by $0^{\circ}.87$.